36. A recombinant vector containing an infectious viral genomic sequence larger than 100 kb and a cloning vehicle sequence that is derived from a bacterial artificial chromosome (BAC) and that can be replicated in a host cell.

37. The recombinant vector of claim 36, wherein the infectious viral genomic sequence is larger than 200 kb.

38. The recombinant vector of claim 36, wherein the infectious viral genomic sequence is derived from a DNA virus.

39. The recombinant vector of claim 38, wherein said DNA virus is a herpes virus.

40. The recombinant vector of claim 39, wherein said herpes virus is a beta herpes virus.

41. The recombinant vector of claim 40, wherein said beta herpes virus is a human cytomegalovirus.

42. The recombinant vector of claim 40, wherein said beta herpes virus is a mouse cytomegalovirus.

43. The recombinant vector of claim 39, wherein said herpes virus is a gamma herpes virus.

44. The recombinant vector of claim 43, wherein said gamma herpes virus is murine gamma herpes virus 68 (MHV 68).

45. The recombinant vector of claim 36, wherein said cloning vehicle sequence is flanked by identical sequence sections that enable excision of the cloning vehicle sequence by homologous recombination.

46. The recombinant vector of claim 36, wherein said cloning vehicle sequence is flanked by recognition sequences for sequence-specific recombinases and/or by unique restriction enzyme sites.

47. The recombinant vector of claim 46, wherein the recognition sequences are loxP sites.

48. The recombinant vector of claim 36, which further contains a selection gene and/or a marker gene.

49. The recombinant vector of claim 45, which further contains a selection gene and/or a marker gene.

50. The recombinant vector of claim 46, which further contains a selection gene and/or a marker gene.

51. A cell containing a recombinant vector of claim 36.

52. A cell containing a recombinant vector of claim 45.

53. A cell containing a recombinant vector of claim 46.

54. A cell containing a recombinant vector of claim 48.

55. A cell containing a recombinant vector of claim 49.

56. A cell containing a recombinant vector of claim 50.

57. A method of producing a recombinant vector of claim 36, which method comprises:

(a) introducing into a host cell containing infectious viral genomic sequences a cloning vehicle sequence that is derived from a bacterial artificial chromosome (BAC) and that can be replicated in a host cell, and

(b) recombining the cloning vehicle sequence with the infectious viral genomic sequences to obtain the recombinant vector.

58. The method of claim 57, wherein step (b) is carried out by homologous recombination.

59. The method of claim 57, wherein said host cell is a eukaryotic cell.

60. The method of claim 59, wherein said eukaryotic cell is a mammalian cell.

61. The method of claim 60, wherein said mammalian cell is a primary fibroblast, a human foreskin fibroblast (HFF), or a mouse embryonic fibroblast.

62. The method of claim 61, wherein said primary fibroblast is an NIH3T3 fibroblast.

63. The method of claim 57, wherein said cloning vehicle sequence is introduced into the host cell by calcium phosphate precipitation, lipofection or electroporation.

64. The method of claim 57, wherein said cloning vehicle sequence is introduced into the host cell by a viral vector.

65. The method of claim 57, wherein said host cell is a bacterial organism.

66. The method of claim 65, wherein said bacterial organism is *Escherichia coli*.

67. A method of mutagenizing an infectious viral genomic sequence in a recombinant vector of claim 36, which method comprises:

(a) introducing the recombinant vector of claim 36 into a bacterial host cell, which contains DNA molecules, and

(b) mutagenizing the infectious viral genomic sequence in the recombinant vector.

68. The method of claim 67, wherein step (b) is carried out by homologous recombination between the recombinant vector and the DNA molecules contained in the bacterial host cell.

69. The method of claim 68, wherein there is a mutant allele in the DNA molecules and said homologous recombination is carried out between the recombinant vector and the mutant allele.

70. The method of claim 67, wherein step (b) is carried out using a transposon.

71. A recombinant vector obtained in accordance with the method of claim 67.

72. The recombinant vector of claim 67, which contains a mutagenized viral genomic sequence that is larger than 200 kb.

REMARKS

New claims 36-72 have been added to eliminate multiply dependent claims and are directed to embodiments encompassed by the original multiply dependent claims. Therefore, no new matter has been added by way of these amendments. The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this